REMARKS

Claims 1 - 7, 9, 10 and 12 - 22 are in this application and are presented for consideration. Claims 1, 2, 4, 6, 9, 10 and 12 have been amended, claims 8 and 11have been canceled, and new claims 13 - 22 have been added. Applicant thanks the Examiner for the careful reading of the application, and for pointing out discrepancies.

The specification has been amended to specifically use the term "line section" in the "DESCRIPTION OF THE PREFERRED EMBODIMENT". The specification now indicates that the preferred embodiment of the line section is shown by reference 20 in the drawings.

The specification has also been amended to indicate that the overlap between the flow channel and the inlets/outlets of the valve housing form the throttling element. This change has been made to page 6 line 10. Applicant also notes that the original specification described on page 7 lines 11 - 12 with reference to Figure 3 that the overlap of the inlets/outlets with the flow channel 14 acts as a throttling element. Therefore the "line section" and the "throttling element" are described both in the "DESCRIPTION OF THE PREFERRED EMBODIMENT" in the specification, and in the drawings.

The application has been rejected as being non-enabling with regard to the terms "line section" and "throttling element" or "throttling".

Applicant has further amended the claims to indicate that the throttling element or the throttling occurs between the fan and the respirator product. The claims are now in conformance with the embodiments shown in the drawings. Applicant notes that in the preferred embodiment, the throttling element is part of the valve. However the throttling

element can be provided in the line section 20, or in other positions between the fan and the respirator product, breathing mask or end of line section 20.

The claims have also been rejected as being obvious over Carlson.

Independent claim 1 sets forth a throttling element having a cross-sectional area that can be varied, and a control unit setting said cross-sectional area to a plurality of positions between fully opened and fully closed. In the embodiment of present Fig. 1, the control unit is shown by reference 23. Support for the control unit setting the cross-sectional area to a plurality of positions between fully opened and fully closed is described in the specification on page 3 lines 6 - 9. Applicant also notes that the specification indicates that the angle of rotation of the valve can be preset for a triangular function. A triangular function has a plurality of set points between the base and the apex. Therefore the description of the triangular function on page 6 lines 16 - 17 also supports the plurality of settings between fully open and fully closed.

Applicant has reviewed Carlson, and finds no teaching nor suggestion of a control unit which sets a cross-sectional area to a plurality of positions between fully opened and fully closed. The rejection equates reversing valve of claim 1 with element 13 of Carlson. The rejection also indicates that element 13 is varied by the clutch motors 32 and 37 and that these motors are controlled via a trigger 28 or the manual rate oscillator 73. Applicant's review of Carlson, finds that all of the above elements used to control 13, are either signaling fully opened or fully closed. Applicant notes that the Schmitt trigger 28 of Carlson is a device which is set to either a high or a low value. Therefore element 28 of Carlson cannot anticipate

the control unit which sets the cross-section to a plurality of positions between fully opened and fully closed.

Applicant has also reviewed the manual rate oscillator 73 of Carlson, and finds this oscillator to generate pulses. Applicant notes that pulses are known in the art, and shown by Carlson, to also have either a high value or a low value. Applicant finds no teaching nor suggestion in Carlson that manual rate oscillator 73 is to set element 13 to a plurality of positions between fully opened and fully closed.

From Applicant's understanding of Carlson, all the controls for element 13 set element 13 either fully opened or fully closed. Therefore it is Applicant's position that Carlson has no structure which anticipates the control unit of amended claim 1. Amended claim 1 therefore cannot be anticipated by Carlson, or considered obvious in view of Carlson.

Claim 6 sets forth the step of variably throttling the cross-sectional area between the fan and the respirator product. The rejection of claim 6 indicates that this step is performed in Carlson by elements 20 and 23. Applicant has reviewed elements 20 and 23 of Carlson, and notes that these elements are passages in spool 14. These passages, and the spool do not by themselves variably throttle. The rejection appears to indicate that when element 14 is turned, the throttling step of claim 16 is performed. Applicant finds Carlson to only rotate element 14 abruptly so that the passages either fully connect or fully block the fluid paths. Applicant notes that one of the definitions of throttling is to decrease or regulate a parameter, such as a flow. Applicant admits that the rotating of spool 14 in Carlson decreases the flow, and only decreases the flow to a fully closed or blocked position. If the Examiner is interpreting the

throttling of claim 16 to cover a decrease where the only decreasing is a complete blocking or shutting off of the flow, then a variable throttling would be a throttling where the flow is not completely closed or shut off. Therefore if the abrupt rotating of element 14 in Carlson is considered throttling, Carlson does not describe a variably throttling. Variably by definition means setting to more than one point. If throttling is broadly interpreted to include any decrease, even to just one point, then variably throttling would be a decrease to more than one point. Since Carlson does not describe decreasing a flow to more than one point, Carlson cannot anticipate the step of claim 6 which variably throttles a cross-sectional area. Therefore claim 6 also cannot be anticipated by, or considered obvious in view of, Carlson.

New independent claim 13 sets forth a fan having a pressure conduit and a suction conduit. In the embodiment of figure 1, the suction conduit is represented by reference 6 and the pressure conduit by reference 7. The rejection has compared the fan of the present invention with the compressor of Carlson. Applicant has reviewed Carlson, and does not find the compressor in Carlson to have both a suction conduit and a pressure conduit. The rejection equates the suction conduit and the pressure conduit with elements of 11 and 12 of Carlson. Applicant notes that element 12 of Carlson is not connected to the compressor. Furthermore, the compressor of Carlson has no affect on element 12 of Carlson. Therefore element 12 of Carlson is not a pressure conduit of the compressor. Since the compressor and elements 11 and 12 of Carlson do not have the same relationship as the fan, suction conduit and pressure conduit of claim 13, claim 13 cannot be anticipated by Carlson.

Claim 13 also sets forth a line section having one end connected to the breathing mask.

In the embodiment of figure 1, this line section is represented by reference 20. Claim 13 then sets forth a valve selectively connecting one of the pressure conduit and the suction conduit to the line section. The rejection equates element 14 of Carlson with the valve of the present invention. However element 14 of Carlson does not appear to selectively connect one of two conduits to a line section. Applicant finds no structure in Carlson that could be equated with the line section of claim 13. Element 18 of Carlson can not anticipate the line section since element 18 does not have one end connected to a breathing mask and element 14 does not selectively connect one of two conduits to another end of element 18. Element 11 cannot anticipate the line section of claim 13 because element 11 is not selectively connected to one of two conduits by element 14. Likewise element 12 is not selectively connected by element 14 to one of two conduits. Applicant finds no teaching nor suggestion of any other structure which has the relationship of the line section and valve of claim 13. Therefore claim 13 further defines over Carlson.

New claim 14 sets forth a control unit controlling the throttle element so that the flow is decreased over a period similar to a breathing pattern of the user. Applicant has reviewed Carlson, and notes that any decrease in flow described in Carlson is not over a period similar to a breathing pattern of a user. Instead it appears that any decrease in Carlson is sudden and abrupt. Applicant notes that the Schmitt trigger 28, the manual rate oscillator 73, and timer 77, all appear to indicate abrupt movements of spool 14. Applicant finds no indication of any of these structures controlling element 14 so that a flow is decreased over a period similar to a breathing pattern of a user. Therefore these structures also cannot anticipate the control unit

of claim 14.

New claim 15 sets forth that the control unit controls the throttling element to vary the increase or decrease according to a plurality of different pressure curves. Applicant finds no teaching nor suggestion in Carlson of increasing or decreasing a flow according to a plurality of different pressure curves, and therefore claim 15 further defines over Carlson.

Claim 16 sets forth that the present invention further comprises a testing head connected to the test head of the line section and that the testing head is connectable to the breathing mask for detecting leakage. In the embodiment of Fig. 1, the testing head is represented by reference 4. Applicant finds no teaching nor suggestion in Carlson of a testing head which is connectable to a breathing mask for detecting leakage. Therefore claim 16 further defines over Carlson.

New claim 19 sets forth that the control unit controls the throttling element to continuously increase or decrease the flow of gas over the period. Applicant finds no teaching nor suggestion in Carlson of increasing or decreasing gas over a breathing pattern, and therefore especially finds no teaching nor suggestion for the flow to be continuously increased or decreased. Claim 19 therefore further defines over Carlson.

Claim 20 sets forth that the control unit controls the throttling element to vary the flow along a substantially sinusoidal pressure curve. Support for this can be found in the specification on page 6 line 17. Applicant finds no teaching nor suggestion in Carlson of a sinusoidal pressure curve, and therefore claim 20 further defines over Carlson.

New claim 22 sets forth that the throttling step in claim 6 sets the cross-sectional area

to a plurality of set points between fully open and fully closed. As described with regard to claim 1, this feature is not found in Carlson, and therefore claim 22 further defines over Carlson.

If the Examiner has any comments or suggestions which would further favorable prosecution of this application, the Examiner is invited to contact Applicant's representative by

telephone to discuss possible changes.

At this time Applicant respectfully requests reconsideration of this application, and based on the above amendments and remarks, respectfully solicits allowance of this application.

Respectfully submitted
for Applicant,

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